

REMARKS

Applicants have received on Office Action mailed by the USPTO October 3, 2001 in connection with the above-identified patent application. In response thereto, applicants respectfully submit this Amendment, together with a Petition for Extension Of Time Pursuant To 37 C.F.R. §1.136(a) and Fee Authorization. Consequently, a response to the Office Action is due no later than February 4, 2002. Accordingly, this Amendment is being timely filed.

Claims 1-6 are pending in the present application.

In the Office Action, the Examiner has rejected claims 1-6 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,856,994 to Hayakawa. More specifically, the Examiner has taken the position that Hayakawa anticipates claims 1-6 as follows: claim 1 because Hayakawa discloses a resonator having a length of 0.8 mm; claims 2 and 5 because Hayakawa discloses that the first resonator has a length of at least 1 mm; claims 3 and 6 because Hayakawa discloses that the first resonator has a length of at least 1.5 mm; and claim 4 because Hayakawa discloses a second resonator 14. Applicants respectfully traverse those rejections.

Hayakawa is directed to a laser-diode-pumped solid-state laser “composed of: a laser diode 11 which emits a laser beam 10 as a pump beam; a condenser lens 12 consisting of, for example, a distributed index lens that converges diverging rays of the laser beam 10; a YAG crystal 13...which is a sold-state laser-medium doped with Neodymium (Nd); a resonator mirror 14 disposed...on the far side of this Nd:YAG crystal 13; a KN crystal 15 interposed between the resonator mirror 14 and the Nd:YAG crystal 13; and an etalon 16 interposed between the KN crystal 15 and the resonator mirror 14.” See, e.g., column 3, lines 6-18. Contrary to the Examiner’s interpretation, reference numeral 12 of Hayakawa refers to a condenser lens, not a resonator. In addition, applicants submit that Hayakawa provides no disclosure regarding the

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length of a resonator. Thus, applicants respectfully submit that Hayakawa does not disclose a resonator having a length of at least 0.8 mm, as recited by claim 1.

With regard to claims 2, 3, 5 and 6, applicants' further submit that Hayakawa does not disclose any dimensions for a resonator, such as those recited by 2, 3, 5 and 6. Finally, with regard to claim 4, applicants submit that Hayakawa does not disclose or suggest a semiconductor-laser-excited solid-state laser apparatus having a second resonator and a wavelength conversion element, as recited by claim 4 (which includes the limitations of claim 1 and is thus not anticipated by Hayakawa for the reasons set forth above).

In addition, the disclosure in Hayakawa of various dimension do not anticipate applicants' invention, as recited by claims 1-6, and as argued by the Examiner. The dimensions disclosed by Hayakawa at column 3, lines 35-45 are as follows: 1 mm for the length of the Nd:YAG crystal 13; 808.5 nm for the wavelength of the laser beam emitted from the laser diode; 946.2 nm for the wavelength of a laser beam emitted by the Nd:YAG crystal 13; and 473.1 nm for a half-wavelength of a second harmonic wave of the laser beam 20 rendered in a single longitudinal mode by the etalon 16. Thus, applicants respectfully disagree with the Examiner that Hayakawa discloses a resonator having a length of 0.8 mm, at least 1 mm, and at least 1.5 mm (see, e.g., numbered paragraphs 2 and 3 of the Office Action). In fact, and as noted above, applicants submit that Hayakawa is silent regarding the length of a resonator.

Thus, applicants respectfully submit that Hayakawa is not a proper 35 U.S.C. §102(b) reference because it fails to teach every aspect of the claimed invention either explicitly or impliedly. See, e.g., Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) and MPEP §§706.02 and 2131. Applicants further respectfully submit that in view of the deficiency of Hayakawa identified above, the Examiner's

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rejection of claims 1-6 under 35 U.S.C. § 102(b) as anticipated by Hayakawa is no longer tenable, and respectfully request withdrawal of that rejection.

Applicants further respectfully submit that the invention recited by claims 1-6 is not rendered obvious by any proposed hypothetical combination of Hayakawa with any other prior art reference of record in the present application, or with the knowledge of a person of ordinary skill in the art. There is no suggestion in Hayakawa, nor motivation to modify its teachings to achieve applicants' invention. Hayakawa is devoid of any disclosure directed to the dimensional requirements of a resonator. Nor does Hayakawa contain any disclosure directed to the effect on laser performance due to the length of a resonator. With those deficiencies, applicants respectfully submit that their invention, as recited by claims 1-6, is not rendered obvious by Hayakawa, considered alone or in combination of with any other prior art reference, or with the knowledge of a person of ordinary skill in the art.

Moreover, Hayakawa is directed to reducing the noise of the laser diode itself (see, e.g., column 1, lines 10-12). Applicants' invention, on the other hand, is directed to reducing the wavelength shift of the light emitted from the semiconductor laser. See, e.g., page 14, lines 1-19. Thus, Hayakawa and applicants' invention are directed at solving different problems of the prior art. Applicants thus respectfully submit that a person of ordinary skill in the art considering the problems addressed by applicants' invention would not look to Hayakawa for teachings regarding those problems.

Applicants respectfully submit that claims 1-6 are patentable over the prior art of record, and respectfully request reconsideration of those claims in view of the remarks provided above.

Early and favorable consideration of the present application in view of the amendments to the claims and remarks provided herein is respectfully requested. If the Examiner is not in a

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position to allow all claims as presently amended, the Examiner is urged to call the undersigned at 212-806-5400.

Any additional fees or charges required at this time and in connection with the present application may be charged to Deposit Account No. 19-4709.

Respectfully submitted,

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